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January 13, 2000

EX PARTE OR LATE FILED

VIA HAND DELIVERY

Magalie Roman Salas, Secretary  
Federal Communications Commission  
The Portals, 12<sup>th</sup> Street Lobby  
445 12th St., SW, Counter TW-A325  
Washington, DC 20554

RECEIVED

JAN 13 2000

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Re: Ex Parte Presentation  
IB Docket No. 99-81  
ET Docket No. 95-18  
RM-9328

Dear Ms. Salas:

Pursuant to Section 1.1206 of the Commission's rules, I hereby notify you that yesterday David Otten of Celsat America, Inc. ("Celsat") and I met with Julius Knapp, Geraldine Matisse, and Sean White of the Commission's Office of Engineering and Technology. At the meeting, Mr. Otten made a brief presentation concerning Celsat's proposal to provide mobile satellite service in the 2 GHz band. In this regard, Mr. Otten distributed the enclosed materials to the individuals present at the meeting. In addition, we discussed the Commission's proposals concerning the reimbursement of incumbent users in the 2 GHz band for their costs of relocating to another band.

Please direct any questions concerning this matter to the undersigned.

Very truly yours,



Brian Weimer

Enclosures

cc: Julius Knapp  
Geraldine Matisse  
Sean White

**CELSAT**  
**“Cheaper, Better, Faster”**  
**Mobile Satellite Communications**

**BRIEFING**

**January, 2000**

**David D. Otten**  
**Chairman and CEO**  
**Celsat America, Inc.**

# **Celsat America, Inc. History**

## **1991 - 1993**

- Developed Technical and Business Concepts
- First U.S. Patent Granted

## **1994 - 1996**

- Additional U.S. Patents Granted
- Investment by Cellular Communications, Inc.
- Hughes, Ericsson, Nortel, and Cellular Communications, Inc. Support

## **1997 - Present**

- Investments by Echostar DBS Corp., George Schmitt, and Bill Ginsberg
- Sale of Seven Billion Minutes of Air Time to GSM Alliance (LOI)
- FCC License Expected
- Additional U.S. and Foreign Patents Granted
- Continued Support From Ericsson
- Investment Bankers: DLJ and B of A Securities

# **Celsat Advantages**

## **Low Prices**

- 8 Cents per Minute Anywhere in the U.S.
- 1 Cent per Minute Breakeven

## **Rapid Time to Service**

- Commercial Service With One Satellite

## **Voice + Data Capability**

- High Speed Mobile Internet Access

## **Dual Mode Satellite/Terrestrial Handhelds**

- Same Size as PCS Phones

## **Low Cost System**

- Breakeven with 250,000 Subscribers

# **CELSAT**

## **Complementary to PCS**

### **PCS Covers About 10% of the U.S. Geography**

- All Digital
- Excellent Voice Quality
- Full Features

### **Cellular Covers Over 70% of U.S. Geography**

- Typically Analog

# **The GSM Alliance Companies Will Be Part of Celsat's Customer Base**

<b>COMPANY</b>	<b>NUMBER OF POPS</b>	<b>LICENSED AREA</b>
<b>VoiceStream</b>	<b>220 million</b>	<b>Near Nationwide (More POPs Than ATT or Sprint)</b>
<b>Pacific Bell Mobile Services</b>	<b>31 million</b>	<b>Southwest</b>
<b>Microcell Telecommunications, Inc.</b>	<b>25 million</b>	<b>Canada</b>
<b>Powertel, Inc.</b>	<b>24 million</b>	<b>Southeast</b>
<b>BellSouth Mobility DCS</b>	<b>13 million</b>	<b>Southeast</b>

# **Low Cost Bluetooth Enhanced Internet Access**

## **Outbound Link For Dish or Direct TV Internet Subscribers**

- 2 MBPS
- Competitive With Cable

## **Remote Mobile PCS Internet Access**

- 384 Kbps Inbound and 96 Kbps Outbound
- Greatly Expanded Coverage, Including Aircraft

## **Personal Digital Assistant Internet Access**

- Coverage Everywhere, Including In Buildings

## **2 MBPS Home Installation**

# System Fundamentals

Company	Satellites Needed Initially	Initial System Cost	Coverage	Maximum U.S. Circuits	Signal Margin	Relative cost per voice call
Iridium	66 Plus Spares	\$5.0 Billion to \$8 Billion	World Wide	4,000	16db Maximum	200
ICO	12	\$4.6 Billion	World Wide	4,000	8 - 10db	30/10
Globalstar	48 Plus Spares	\$3.3 Billion Plus Ground Stations	World Wide	4,000	8db Maximum	125
Celsat	1 Plus Spare	\$0.75 Billion	U.S., Canada, and Mexico	50,000 Per Satellite	16 - 22db	1

Source: FCC and SEC documents and Celsat Estimates



# Celsat Is The Most Competitive

	<b>Price Per Minute</b>	<b>Handset Price</b>	<b>Maximum Data Rate</b>	<b>Dual Mode Phone</b>	<b>Average RF Power</b>	<b>Satellite Handovers Required</b>	<b>Microwave Oven or Bluetooth Wipe Out?</b>
<b>Iridium</b>	<b>\$3.00 to \$7.00 retail</b>	<b>\$1,000 +</b>	<b>2.4 Kbps</b>	<b>Brick With Hot Dog Antenna</b>	<b>0.5 Watt</b>	<b>Many</b>	<b>No</b>
<b>ICO</b>	<b>\$2.00 retail</b>	<b>\$700</b>	<b>64 Kbps</b>	<b>Larger Than Celsat's</b>	<b>0.5 Watt</b>	<b>Some</b>	<b>No</b>
<b>Globalstar</b>	<b>\$1.50 retail</b>	<b>\$1,000</b>	<b>9.6 Kbps</b>	<b>Brick With Hot Dog Antenna</b>	<b>0.5 Watt</b>	<b>Many</b>	<b>Yes</b>
<b>Celsat</b>	<b>\$0.08 wholesale</b>	<b>Free</b>	<b>Fixed: 2 Mbps Mobile: 384 Kbps</b>	<b>Small, User Friendly PCS Phone</b>	<b>0.25 Watt</b>	<b>None</b>	<b>No</b>

Source: FCC and SEC documents, press coverage, and Celsat Estimates

# **“Cheaper , Better, Faster ” Than Iridium, Globalstar, and ICO**

High Speed Internet — Up to 2 Megabits Per Second  
Smaller, Lower Power PCS Size Handset

Higher Signal Margin

Celsat Will Serve a Proven and Rapidly Growing Market  
Service — Pennies a Minute, Not Dollars a Minute

Start With 1, Not 66, 48, or 12 Satellites

- Faster, Simpler and Cheaper by Far
- Respects “Otten’s Law”

# **Other Regional GEOs**

## **Potential Regional GEO systems include:**

- ACeS (coverage of Indonesia and South East Asia)
- Thuraya (coverage of Moslem countries, India, Europe)

## **All of the above utilize 12 meter reflectors**

- Celsat has more than twice the capacity for the same cost

## **Financial and Technical Support From Major Satellite Manufacturers**

# **Speed of Light Transmission Effect**

## **No Impact on:**

- Internet Usage**
- Fax**
- Paging**
- Data**

**Echo Cancellers Minimize any Problems for Voice**

# High Gain, Multi-Beam Satellite Antenna

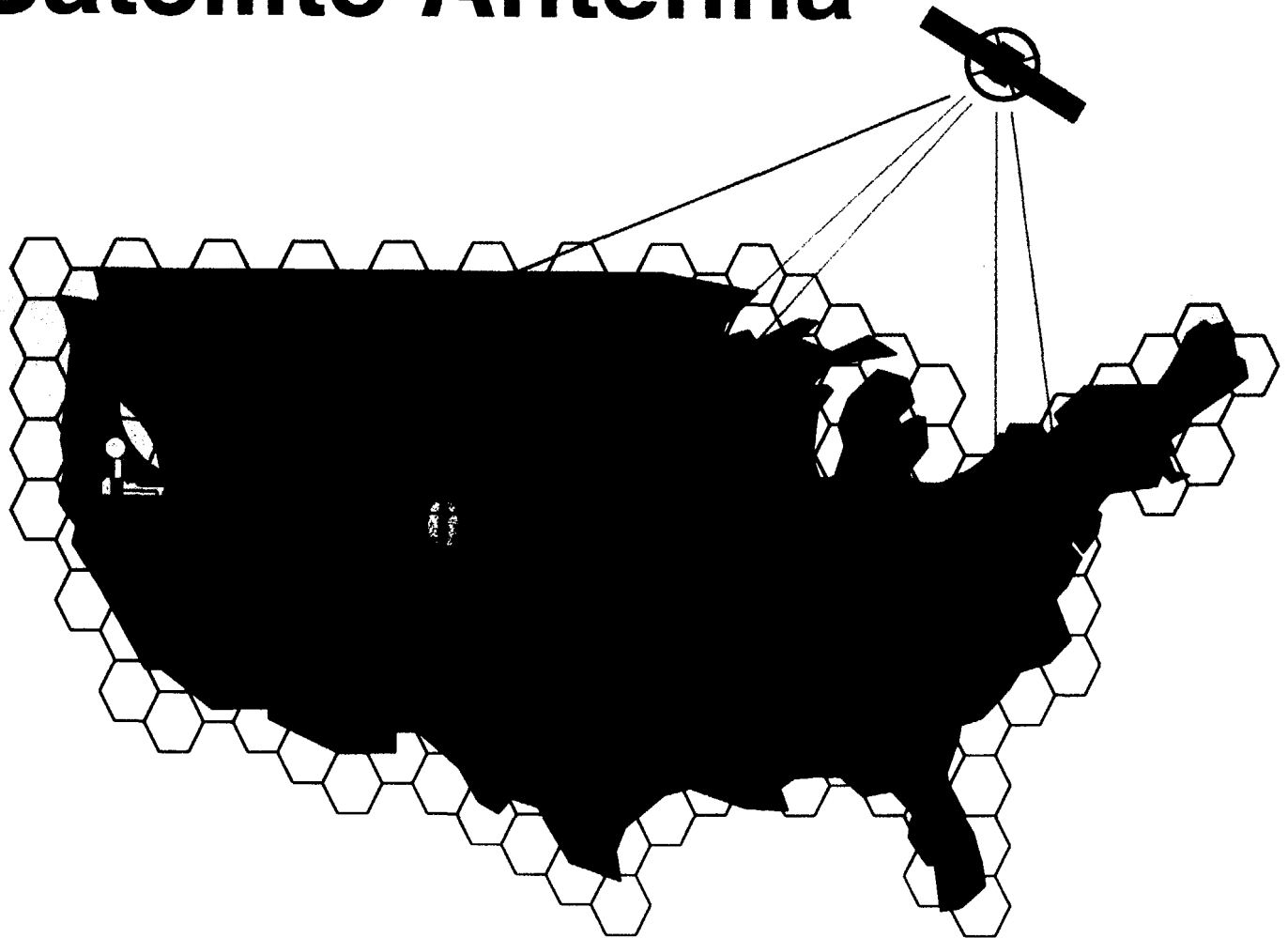
**120 Transponders  
Per Satellite.**

**20 Meter Satellite  
Antenna Diameter.**

**1/2 Degree 3dB  
Beamwidth,  
~50dB Gain.**

**100 Miles Cell  
Radius on Earth.**

**Beams Always at  
Least 36 Degrees  
Above Horizon for  
the US, except  
Alaska.**

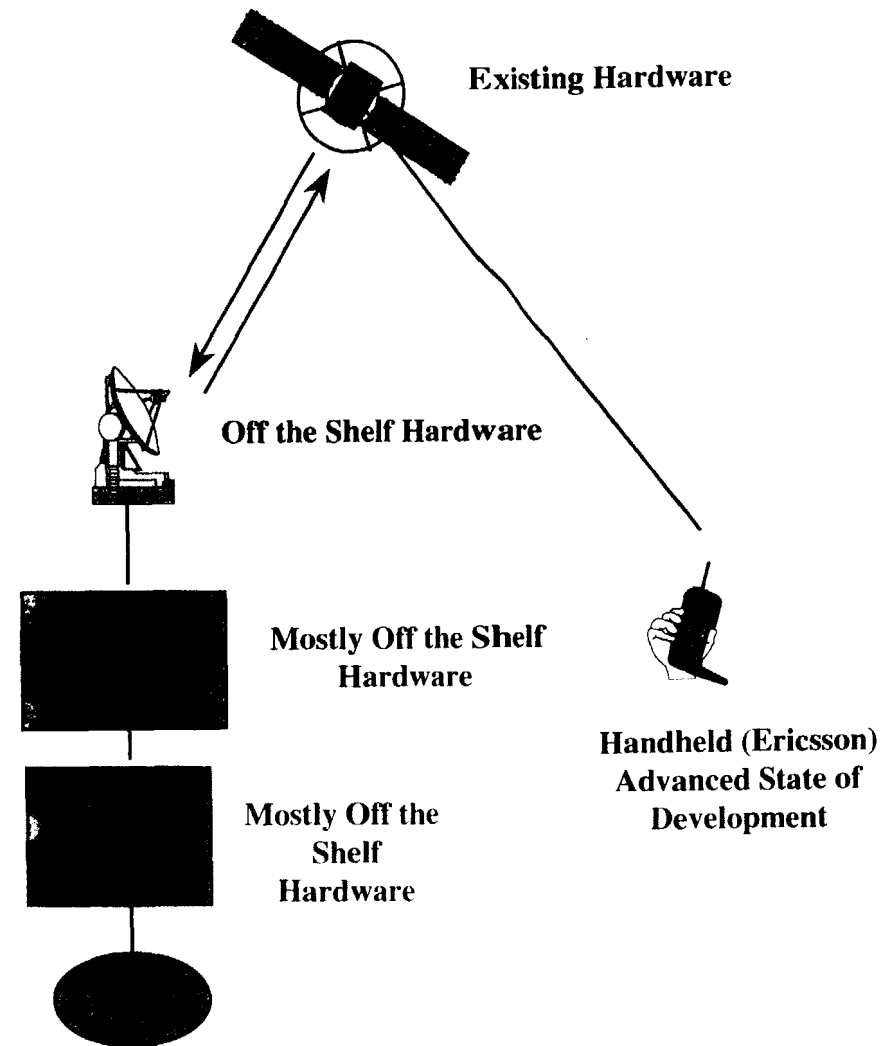


# Technology Fully Proven

**Satellite Bus, Payload and 21m S-Band Multi-Beam Antenna Are Proven In-Use Designs.**

**Ground Gateway Network & Base Station Utilize Mostly Existing Feeder Station and Cellular/PCS Hardware.**

**Dual Mode Terminal - Advanced State of Development**



# **Celsat's Patent Summary**

## **Dual Mode Satellite and Ground Mobile Communications System**

- U.S. Patents 5,073,900; 5,339,330; 5,832,379; 5,940,753; & 5,995,832

## **Power Control**

- U.S. Patents 5,446,756 & 5,878,329

## **Coexistence with Incumbent Fixed Services**

- U.S. Patent 5,511,233

## **Position Determination**

- U.S. Patent 5,612,703

## **Fraud Prevention**

- U.S. Patent 5,835,857

# **SUMMARY OF CELSAT'S ADVANTAGES**

## **Best Service**

- High Voice Quality
- Enhanced Services
- Full North American Coverage

## **Lowest Cost**

- Pennies a Minute
- LOI for Sale of Seven Billion Minutes
- 1 Satellite to Initiate Commercial Service

## **Proven, Innovative Technology**

- High Gain 20 Meter Antenna
- Multiple Beams
- 9 U.S. Patents Issued